

# Center for Minerals Technology

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## Background

Established in 1995, the center's focus is on developing new technologies for minerals processing. Specific areas of expertise include the design of high efficiency grinding mills using state-of-the-art computer simulation software, advanced mill analysis and monitoring methods, technologies for the in-line monitoring and measurement of particle size on moving conveyor belts, and the real-time control of industrial milling processes.

## Technology Development Progress

Computer software, on-line instruments and laboratory procedures for the design, monitoring control and analysis of industrial grinding machines and operating plants have been demonstrated and are being designed for industrial applications.



## Highlights and Accomplishments

- A contract has been concluded to investigate the liberation characteristics of the copper ore at the Grasberg Mine of Freeport Indonesia
- An instrument to measure the distribution of sizes of particles on moving conveyor belts has been developed and successfully tested at an industrial site. This instrument is of great value because it eliminates the need to take samples from the conveyor for remote analysis and therefore provides real-time process control for mining and milling operations.
- The center continues to concentrate on demonstrating the application of new technologies in an industrial setting.
- The center has performed laboratory tests on samples of materials from CEMEX, Mexico, PT Freeport, Indonesia, Cypress Copper Company and Newmont Mining Co. The objective is to ascertain the applicability of the center's new test procedure for evaluating industrial ores and to promote the use of the center's experimental procedures in industry. A comprehensive market survey has been undertaken to establish the extent of interest in the equipment and procedure.

## Summary Data:

### Current

1995-96 Award .....	\$125,000
Matching Funds .....	\$670,478
Patents Pending .....	0
Patents Issued .....	0
License Agreements .....	0
Spin-off Companies .....	0
Companies Assisted .....	2
Industry Jobs .....	0
Center Jobs .....	5

### Cumulative

Awards .....	\$125,000
Matching Funds .....	\$670,478
Patents Issued .....	0
License Agreements .....	0
Spin-off Companies .....	0